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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/817,880	03/26/2001	Sean E. Trowbridge	MS167381.1	7613
27195	7590	08/26/2005	EXAMINER	
AMIN & TUROCY, LLP 24TH FLOOR, NATIONAL CITY CENTER 1900 EAST NINTH STREET CLEVELAND, OH 44114			RUTTEN, JAMES D	
			ART UNIT	PAPER NUMBER
			2192	

DATE MAILED: 08/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/817,880	Applicant(s) TROWBRIDGE, SEAN E.	
	Examiner J. Derek Rutten	Art Unit 2192	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Acknowledgement is made of Applicant's amendment dated 03 June 2005, responding to the 25 June 2004 Office action provided in the rejection of claims 1-33, wherein claims 1, 3, 6, 9-13, 20, 27-30, and 32 have been amended, no claims have been canceled, and no new claims have been added. Claims 1-33 remain pending in the application and have been fully considered by the examiner.

2. Applicant's arguments, see pages 10 and 11, filed 3 June 2005, with respect to the rejection(s) of claim(s) 1,2,5-10, 12-17, 19, 30, and 31 under 35 U.S.C. 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of "HotSpot: A new breed of virtual machine" by Armstrong.

3. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Response to Arguments

4. Applicant argues on page 8 that “the original oath or declaration as filed was not defective”. However, the original declaration merely acknowledges the “duty to disclose” under 37 CFR 1.56(a). It does not address 37 CFR 1.56(b)-(e). Thus, the full section is not addressed as required. See MPEP § 1.63(b)(3).

5. Applicant’s amendments as addressed on pages 8 and 9 (section I and II), have overcome the prior rejections under 35 USC § 112, and are thus withdrawn.

6. Applicant argues on page 9 (section III) that the Goodwin reference fails to disclose a first code image or specialized code image in an unmodified format. However, the phrase “unmodified format”, particularly in contrast with the term “specialized code image,” is not clear. The term “specialized code image” connotes a specialization, or modification, of a generic code image for a specified function. If a code image is specialized, how can it be unmodified? Further, the term “unmodified” implies a pre-existing, original and consistent state. In the process of creation of a code image, source code is typically analyzed and converted into an intermediate form, from which it is further analyzed, possibly optimized, and converted to a binary image. Thus, any “code image” can be considered as a modified format from the original source. The plain language of the claim does not place restrictions on the determination of what should be considered the original state. In that context, any code image can be considered “unmodified”. Therefore, even code that contains instrumentation code can be considered unmodified if it is originally compiled as such. Thus, the argument is not convincing.

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7. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., code image is not instrumented – paragraph 2 on page 9 of the response) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

8. Applicant argues in section IV appearing on pages 10 and 11 of the response, that the Breslau and Spyker references do not teach or suggest new limitations reciting the generation of a native executable for an operating system or runtime environment based upon a compatibility of availability determination with such environments. These arguments are convincing. However, a new rejection is made in view of “HotSpot: A new breed of virtual machine” by Armstrong.

9. Applicants arguments in sections V-VIII appearing on pages 11-13 of the response are based on arguments related to parent claims and, as such, have been addressed above.

10. Applicant argues in section IX appearing on page 13 of the response, that Breslau and Nelin do not “teach or suggest a data field having at least two of the recited fields.” However, this feature does not appear to be supported by the originally filed specification, and is further addressed in the *Claim Rejections - 35 USC § 112* section below.

11. Applicant argues in section X appearing on pages 13 and 14 of the response, that none of the cited references “teach or suggest an execution engine that selects at least one specialized executable image from a repository if at least one specialized image matches present operating environment data”. In response to applicant's arguments against the references individually, one

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cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). On page 14 of the Office Action dated 6/25/2004, the Ramezani reference is cited to support the limitations in question. Ramezani teaches the storage of software in a database repository (column 4 lines 54-57). Specialized executable software is chosen based on system profile data (column 5 lines 11-12). As such, these limitations are met by the prior art, and Applicant's argument is not convincing.

12. Applicant argues in section X appearing on pages 13 and 14 of the response, that there is no motivation to combine the Breaslau, Ramezani, and Spyker references. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, motivation is found not only in the knowledge generally available to one of ordinary skill in the art, but also in Ramezani's *Background* section in column 1 lines 23-24:

However, various software and services are provided without considering the user's requirements and/or preferences. Consequently, the systems are not optimized for the user's specific needs and/or preferences.

One of ordinary skill in the art would be motivated to assess software in order to determine if it meets the requirements of the target system. Thus, motivation to combine is provided and Applicant's argument is not convincing.

Oath/Declaration

13. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

While acknowledging the duty to disclose in accordance with 37 CFR 1.56(a), it does not state that the person making the oath or declaration acknowledges the duty to disclose to the Office all information known to the person to be material to patentability as defined in 37 CFR 1.56(b)-(e).

Claim Rejections - 35 USC § 112

14. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

15. Claim 32 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 32 recites: “a second data field having at least two of <parameters>”. While the originally filed specification provides support for a second data field having at least *one* parameter (support is found in the text of the claim itself), review of the specification did not further reveal support for a second data field having at least *two* <parameters>. For the purpose of further examination, this limitation will be interpreted as a data field having at least *one* parameter as originally filed.

Claim Rejections - 35 USC § 102

16. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

17. Claims 20-22 and 27-29 are rejected under 35 U.S.C. 102(e) as being anticipated by prior art of record U.S. Patent Number 6,158,049 to Goodwin et al. (hereinafter “Goodwin”).

In regard to Claim 20, Goodwin teaches: determining a first code image associated with a possible runtime environment (Figure 1, item 105 – the determined first code image is the instrumented object code); executing the first code image in an unmodified form in the runtime environment (Figure 2, item 151); and generating runtime feedback associated with the first code image to adjust a subsequent code image according to the runtime environment (Figure 2, items 152 and 107).

In regard to Claim 21, Goodwin teaches generating a specialized executable from the subsequent code image (Column 4, lines 57-60).

In regard to Claim 22, Goodwin teaches storing the application images in a database (Figure 1, item 107).

In regard to Claim 27, Goodwin teaches at least: organizing data and methods in the first image to optimize the images based on profile data (Column 2, lines 63-67).

In regard to Claims 28 and 29, these are system Claims that correspond with method Claims 20 and 21, and are rejected for the same reasons as Claim 20 and 21

respectively, where Goodwin teaches a system for carrying out said method of Claims 20 and 21 (Figure 1).

Claim Rejections - 35 USC § 103

18. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

19. Claims 1, 2, 5-10, 12-17, 19, 30, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over prior art of record U.S. Patent Number 5,761,512 to Breslau et al. (hereinafter "Breslau") in view of prior art of record U.S. Patent Number 6,571,389 to Spyker et al. (hereinafter "Spyker"), and further in view of "HotSpot: A new breed of virtual machine" by Armstrong (hereinafter "Armstrong")

In regard to Claim 1, Breslau teaches *a log to store information relating to an operating environment of a system (Figure 2), the logged information is employed as feedback to generate a native executable (Figure 3, item 59)*. Breslau does not teach that a loader is used to determine availability, that the system is a virtual subsystem, nor that the native executable is utilized to provide improved performance of the virtual subsystem.

However, in an analogous environment, Armstrong teaches *a loader to determine availability of a specialized image that is associated with an operating environment of the virtual subsystem*. See the "Control" block in the figure at the bottom of page 3; also

see the top of page 4: “When a method is invoked, the native machine-code version is used, if it exists.” Also in an analogous environment, Spyker teaches generating native executables on a virtual subsystem for improving the performance of the subsystem (Column 1, lines 22-27 and lines 37-44).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to use Armstrong’s loader with Breslau’s environment log. One would be motivated to use a loader that checks for specialized images in order to optimize execution time (Armstrong page 4 paragraph 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Spyker’s virtual subsystem with Breslau’s environment. One of ordinary skill would have been motivated to allow a programming image to be utilized in a number of different environments that support a virtual subsystem.

In regard to Claim 2, Breslau teaches that the native executable is selected for execution by the virtual subsystem by matching a current environment setting with the logged information (Column 8, lines 22-27).

In regard to Claim 5, Breslau teaches a local data log (Figure 4, item 135).

In regard to Claim 6, Breslau teaches a data log stores 1 though N environment parameter descriptions associated with 1 to N encountered images, wherein N is an integer (Figure 1A).

In regard to Claim 7, Spyker teaches a virtual machine as a virtual subsystem which uses an intermediate code image (Figure 1, lines 22-27 and lines 39-44).

In regard to Claim 8, Spyker teaches a Just-In-Time compilation (Column 1, lines 39-44).

In regard to Claim 9, Spyker teaches that the virtual subsystem generates native platform code (Column 1, lines 39-44).

In regard to Claim 10, Spyker teaches installing or running a generic code image by converting it into a native executable (Column 1, lines 39-44).

In regard to Claim 12, Spyker teaches generating a native code image using the virtual machine (Column 1, lines 39-44).

In regard to Claim 13, Breslau teaches an image processor for processing feedback and generating a native executable (Figure 3).

In regard to Claim 14, Breslau teaches that the image processor comprises a compiler (Figure 3, item 59).

In regard to Claim 15, Breslau teaches an image-processing tool to read the logged information and associate one or more environmental settings with one or more related images encountered during virtual subsystem execution (Column 9, lines 43-48).

In regard to Claim 16, Breslau teaches logged information relating to an operating system version and processor type (Figure 2).

In regard to Claim 17, Breslau teaches a system identifier to match parameters with native code (Figure 2, items "SYS A", "SYS B", and "SYS C").

In regard to Claim 19, Breslau teaches a medium (Figure 4) for carrying out said execution of the system in Claim 1.

Claim 30 corresponds with Claim 1, and Claim 30 is rejected for the same reasons as Claim 1, where a signal is an inherent aspect of communication in a data processing system. Spyker's generic image (Java Bytecode) is predetermined to be incompatible with the operating environment of the virtual system, since bytecode is an intermediate code format that is not directly executable. All further limitations have been addressed in the above rejection of claim 1.

In regard to Claim 31, Spyker teaches that this signal is communicated over a network (Figure 5A, items 506 and 507).

20. Claims 3 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Breslau, Spyker, and Armstrong as applied in the above rejection of claims 1, 2, 5-10, 12-17, 19, 30, and 31, and further in view of prior art of record U.S. Patent Number 6,721,946 to Fogarty et al. (hereinafter "Fogarty").

In regard to Claim 3, Breslau and Spyker teach the method of Claim 1, but do not teach an image repository to store 1 through N specialized native images, wherein N is a positive integer. Fogarty, however, does teach an image repository for holding a plurality of software images (Figure 2, item 212). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to build the system of Claim 1, further storing the images in an image repository, since this allows the images to be centrally accessed from one location.

In regard to Claim 4, Fogarty teaches that the image database is a local or remote database (Figure 3, item 212).

21. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Breslau, Spyker, and Armstrong as applied in the above rejection of claims 1, 2, 5-10, 12-17, 19, 30, and 31, and further in view of prior art of record U.S. Patent Number 6,519,762 to Cooligan et al. (hereinafter "Cooligan").

In regard to Claim 11, Breslau and Spyker teach the system of Claim 1, but do not teach that the logged information includes a set of information to enable the specialization of executable images according to a user, a method of invocation, and a usage pattern. Cooligan, however, does teach specializing applications based on user preferences. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to build the system of Claim 1, as taught by Breslau and Spyker, where the logged information includes a set of information to enable the specialization of executable images according to a user, as taught by Cooligan, since this allows the user to interact with software that he or she feels comfortable with (Column 2, lines 52-54).

22. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Breslau, Spyker, and Armstrong as applied in the above rejection of claims 1, 2, 5-10, 12-17, 19, 30, and 31, and further in view of prior art of record U.S. Patent Number 6,253,368 to Nelin et al. (hereinafter "Nelin").

In regard to Claim 18, Breslau and Spyker teach the system of Claim 16, but neither teaches that the developer parameters describe at least one of debug options, compiler switch settings and information relating to preferences of a user. Nelin,

however, does teach storing development parameters that deal with user preferences of debug options (Column 15, lines 40-47). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to build the system of Claim 16, as taught by Breslau and Spyker, where the developer parameters describe at least one of debug options, compiler switch settings and information relating to preferences of a user, as taught by Nelin, since these options are also a field that helps to profile the settings and preferences of a computer system and a user.

23. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Goodwin as applied in the above rejection of claim 21, further in view of “Compilers: Principles, Techniques, and Tools” by Aho et al. (hereinafter “Aho”).

In regard to Claim 23, Goodwin teaches processing a generic image using standard compilation techniques (Figure 1, item 102). Goodwin does not expressly teach intermediate language. However, in an analogous environment, Aho teaches processing intermediate language code utilizing standard compilation techniques. See Figure 1.9 on page 10; also pages 12-14. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Aho’s intermediate language with Goodwin’s compiler. One of ordinary skill would have been motivated to use a language that is easily translated into a target program (see Aho, last full paragraph on page 12).

24. Claims 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goodwin and Aho as applied to the rejection of claim 23 above, and further in view of Breslau.

In regard to Claim 24, Goodwin teaches the method of Claim 23, but does not teach logging operating environment information during processing of the generic image. Breslau, however, does teach logging environment variables of a computer system to compile a generic image (Figure 2). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to perform the method of Claim 23, as taught by Goodwin, where the method includes logging operating environment information during processing of the generic image, as taught by Breslau, since this allows customization of the image to suit the environment.

In regard to Claim 25, Goodwin teaches the method of Claim 23, but does not teach building the specialized executable to suit the environment. Breslau, however, does teach generating an environment specific executable (Column 1, lines 65-67). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to perform the method of Claim 23, as taught by Goodwin, where the method includes building the specialized executable to suit the environment, as taught by Breslau, since this allows customization of the executable to suit the environment.

In regard to Claim 26, Breslau teaches selecting the specialized executable by matching a current environment setting with the logged environment information (Column 8, lines 22-27).

25. Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Breslau in view of Nelin.

In regard to Claim 32, Breslau teaches a first data field having parameters relating to at least one of an operating system version (Figure 2, item "OS" in SET Table) and a third data field having a profile information field associated with the operating environment of a virtual system (Figure 2, item "HW" in SET Table). Breslau does not teach a second data field having at least one of a developer parameter, a domain flag, a security information field, and a binding information field.

Nelin, however, does teach a developer parameter field for debugging programs (Column 15, lines 40-47). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to construct a data structure containing a first data field having parameters relating to at least one of an operating system version and a third data field having a profile information field associated with the operating environment of a virtual system, as taught by Breslau, where the structure also contains a second data field having a developer parameter, as taught by Nelin, since a developer parameter is also a field that helps to profile the settings and preferences of a computer system and a user.

26. Claim 33 is rejected under 35 U.S.C. 103(a) as being unpatentable over Breslau in view of prior art of record U.S. Patent 6,457,122 to Ramezani (hereinafter "Ramezani"), and further in view of Spyker.

In regard to Claim 33, Breslau teaches an execution engine that processes an image (Figure 3), the execution engine generating operating environment data while processing the image (Figure 2), and a specialized executable image generated at least in

part from the operating environment data (Figure 3, item 59). Breslau does not teach that the specialized executable image stored in a repository of one or more other specialized executable images wherein the execution engine selects at least one specialized executable image from the repository if the at least one specialized image matches present operating environment data.

Ramezani, however, does teach a specialized image repository (Column 4, lines 54-57); wherein the execution engine selects at least one specialized executable image from the repository if the at least one specialized image matches present operating environment data (Column 5, lines 11-12). Neither Breslau nor Ramezani teach that the image is an intermediate language image. Spyker, however, does teach processing an intermediate language image (Column 1, lines 37-44).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to build a system including an execution engine that processes an image, the execution engine generating operating environment data while processing the image, and a specialized executable image generated at least in part from the operating environment data, as taught by Breslau, where the specialized executable image stored in a repository of one or more other specialized executable images wherein the execution engine selects at least one specialized executable image from the repository if the at least one specialized image matches present operating environment data, as taught by Ramezani, since this allows for a centralized storage location for all of the images, as well as an image that is designed specifically for a certain operating environment, further where the first image is an intermediate language image, as taught by Spyker, since this

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allows the image to be executed on any environment that can handle the intermediate language. One of ordinary skill in the art would be motivated to assess software in order to determine if it meets the requirements of the target system (See Ramezani's *Background* section in column 1 lines 23-24).


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to J. Derek Rutten whose telephone number is (571) 272-3703. The examiner can normally be reached on T-F 6:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on (571) 272-3695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

jdr



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SUPERVISORY PATENT EXAMINER